

## Document Control

<b>Title</b>			
<b>Management of tunnelled central catheters (Hickman) Standard Operating Procedure</b>			
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<b>Directorate</b>		<b>Department</b>	
Trustwide		Trustwide	
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0.1	Jan 2009	Draft	Draft developed for discussion.
0.2	Jan 2009	Draft	Amended version circulated for comments.
0.3	March 2009	Draft	Further amended version circulated for final comments.
1.0	June 2009	Final	Final version for approval. Approved by Infection Prevention and Control Committee 27th July 2009.
1.1	Nov 2010	Revision	Minor amendments including main contact details. Approved by Infection Prevention and Control Team 21st April 2011.
1.2	Jun 2011	Revision	Minor amendments by Corporate Affairs to document control report and formatting for document map navigation.
2.0	Oct 2014	Revision	Confirmation of drawing up needles. References updated. Approved at IPCC 7th Oct 2014 & Published on Bob
2.1	Dec 2017	Revision	Transferred to updated template Section 5 clarification regarding gloves Effective Hand Hygiene technique added (6.5, 7.6) ANTT included (6.5 & 7.3) CLIP score added (6.11, 7.1, 7.12 & Appx A)
2.2	March 2018	Revision	Following consultation For approval at IPCC 27 <sup>th</sup> March 2018
3.0	April 2018	Final	Amendments to References following IPCC For posting on BOB
4.0	Dec 2019	Final	3.3 Minor changes to reflect specific role definitions for pre-registration nursing, midwifery and allied health professional students, in line with Nursing and Midwifery Council (NMC) requirements. Approved at IPDG meeting 17 <sup>th</sup> Dec 2019
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<b>Lead Director</b> Director of Nursing		
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## 1. Background

- 1.1. This document sets out Northern Devon Healthcare NHS Trust's system for management and maintenance of a tunnelled central catheter (Hickman) and this procedure replaces all existing guidance/superseded procedures.
- 1.2. A skin tunnelled central catheter is a device inserted under the skin into the superior vena cava and is used when safe and reliable long-term venous access is required. The insertion and removal of a skin tunnelled catheter are surgical procedures.

## 2. Purpose

- 2.1. The Standard Operating Procedure (SOP) has been written to:
  - Identify the procedure for the management and maintenance of a tunnelled central catheter (Hickman).
  - Reduce the risks associated with having a tunnelled central catheter (Hickman) in situ by identifying evidence based safe systems of work.

## 3. Scope

- 3.1. This Standard Operating Procedure (SOP) relates to the following staff groups who may be expected to manage and maintain a tunnelled central catheter and should be used in conjunction with standard operating procedures which refer to the administration of injectable medications:
  - Registered nurses
  - Registered Midwives
  - Medical staff
  - Operating Department Practitioners
- 3.2. Staff undertaking this task must be able to demonstrate attendance at relevant Trust training and be reassessed as competent as per NDHT Assessment and Maintenance of Clinical and Medical Device Competence in Nurses, Midwives, AHPs and Support Workers Policy.
- 3.3. Student healthcare practitioners may be given increased responsibility as they progress with their training, but must remain directly supervised by a competent Registrant at all times until registration, according to their professional body and standards; the supervising registrant will need to make themselves aware of the previous experience of the student, the stage of the course and assess current competencies.

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## 4. Location

- 4.1. This Standard Operating Procedure can be implemented in all settings where competent staff are available to perform this skill and asepsis maintained.

## 5. Equipment

### 5.1. Equipment:

- 10 ml 0.9% sodium chloride flushes
- Ampoules of heparinised solution
- 10 ml Syringes (*smaller syringes will increase pressure exerted on veins and could damage the line*)
- Blunt fill and filter needles for drawing up
- Sterile dressing pack
- 2% chlorhexidine gluconate in 70% alcohol
- Sterile transparent dressing with high moisture/vapour transmission rate e.g. IV3000
- Needlefree access device eg Codan Swanlock
- Sharps bin
- Protective eye/face wear if required
- Medications for administration
- Gloves

- 5.2. The use of non-sterile or sterile gloves will depend on the procedure being undertaken and its technical difficulty, contact with susceptible sites or clinical devices and the risks involved, including the risk of exposure of the health care worker to blood and / or body fluids (RCN 2016).

- 5.3. Heparinised solution flush may be considered in some cases especially if the line is left dormant for long periods of time but should not be used routinely and should be discussed with medical staff and prescribed. If a heparinised flush is indicated this should be administered after the final sodium chloride flush and again administered under pressure using a push pause technique.

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## 6. Procedure for administering medications through a Hickman Line

- 6.1. Explain the procedure to the patient checking patient identity against relevant prescription documents, check allergy status and gain informed consent.
- 6.2. Prepare equipment as required from list in section 5. Prepare the medications prescribed as per the relevant standard operating procedures and 0.9% sodium chloride flushes. You will need enough flushes to flush the line pre administration of medications, between each medication and to flush on completion of administration.
- 6.3. Position the patient appropriately, ensuring they are comfortable, with line exposed respecting individuals privacy and dignity as necessary.
- 6.4. Consider the use of protective eye / face wear and apron if there is an increased risk of splash inoculation (e.g. unpredictable patients).
- 6.5. Wash hands using an effective Hand Hygiene (HH) technique and apply gloves. Use aseptic non-touch technique (ANTT) at all times.
- 6.6. Thoroughly disinfect needlefree access device with 2% chlorhexidine gluconate in 70% alcohol and allow to air dry. This should be repeated for each lumen.
- 6.7. Attach empty syringe, release clamp and attempt to aspirate 5mls of blood to verify position. This should be repeated for each lumen.
- 6.8. Flush line under constant pressure and then administer any medications as per prescription, flushing between each medication.
- 6.9. If the flush is a maintenance flush or upon completion of medication administration the final flush should be done utilising a brisk push pause technique (1ml/time) and clamped under positive pressure i.e. before syringe is removed from needle free device. This should be done for each lumen.
- 6.10. Dispose of all sharps and consumables immediately at point of treatment according to NDHT Waste Management Policy.
- 6.11. Document the process including a record of the CLIP score.
- 6.12. Lines not being routinely used should be flushed weekly and needlefree access devices changed on a weekly basis also. When the needle free access devices are replaced, the end of the line should be cleaned with 2% chlorhexidine gluconate in 70% alcohol.
- 6.13. Advice should be sought if:
  - There is a history of difficulty with this procedure
  - You are unsure of the catheter position
  - You observe any signs of infection, phlebitis or infiltration
  - You are concerned that the line has occluded

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## 7. Procedure for Dressing a Hickman Line

- 7.1. Change dressing every 7 days or sooner if contaminated. Once the Hickman line has been established a dressing may not be indicated but the entry site and surrounding area must be monitored using the CLIP score.
- 7.2. Explain the procedure to the patient checking patient identity and gain informed consent.
- 7.3. Using the principles of Aseptic Non Touch Technique (ANTT) prepare the equipment as required from list in section 5.
- 7.4. Put on gloves and loosen the dressing, removing it without touching the catheter and exit site - lifting from the base of the dressing upwards reduces the risk of dislodging the catheter.
- 7.5. Check catheter length for migration.
- 7.6. Wash hands using an effective Hand Hygiene (HH) technique and apply sterile gloves.
- 7.7. Thoroughly disinfect entry site with 2% chlorhexidine gluconate in 70% alcohol for at least 30 seconds and allow to air dry.
- 7.8. Apply steri-strips to any lines that need securing.
- 7.9. Place new dressing over site.
- 7.10. Replace needlefree access device.
- 7.11. Dispose of all sharps and consumables immediately at point of treatment according to NDHT Waste Management Policy.
- 7.12. Document the process within the patient notes including the CLIP score.
- 7.13. Advice should be sought if:
  - There is a history of difficulty with this procedure
  - You are unsure of the catheter position
  - You observe any signs of infection, phlebitis or infiltration
  - You are concerned that the line has occluded

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## 8. References

- Loveday H. P. et al (2013) National Evidence Based Guidelines for preventing Healthcare Associated Infections in NHS Hospitals in England (epic 3)  
[http://www.his.org.uk/files/3113/8693/4808/epic3\\_National\\_Evidence-Based\\_Guidelines\\_for\\_Preventing\\_HCAI\\_in\\_NHSE.pdf](http://www.his.org.uk/files/3113/8693/4808/epic3_National_Evidence-Based_Guidelines_for_Preventing_HCAI_in_NHSE.pdf)
- NHS Improvement High Impact Interventions  
[https://www.ips.uk.net/files/6115/0944/9537/High\\_Impact\\_Interventions.pdf](https://www.ips.uk.net/files/6115/0944/9537/High_Impact_Interventions.pdf)

## 9. Associated Documentation

### 9.1. Northern Devon Healthcare NHS Trust Policies for :

- Aseptic Techniques Policy
- Assessment and Maintenance of Clinical and Medical Device Competence in Nurses, Midwives, AHPs and Support Workers Policy
- Injectable Medicines Policy
- Intravascular Devices Policy
- Standard Infection Control Precautions Policy
- Waste Management Policy

### 9.2. Northern Devon Healthcare NHS Trust Standard Operating Procedures SOPs:

- Administering Injectable Medicines
- Obtaining blood samples from Central Venous Catheters
- Preparing Injectable Medicines



## APPENDIX A

### CLIPS (Central Line Infection Prevention Score)

